

## t46\_modelc.3

(TMZBE6rX7C3puLRFzRyMVUa54z2xiMCButV)

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Let  $v1\_modelc.2 : \iota \Rightarrow o$  be given. Let  $m2\_finseq.1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_numbers : \iota$  be given. Let  $m1\_subset.1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k25\_modelc.2 : \iota \Rightarrow \iota$  be given. Let  $k43\_modelc.2 : \iota$  be given. Let  $v1\_funct.1 : \iota \Rightarrow o$  be given. Let  $v1\_funct.2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k22\_modelc.3 : \iota \Rightarrow \iota$  be given. Let  $k1\_zfmisc.1 : \iota \Rightarrow \iota$  be given. Let  $k2\_zfmisc.1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r7\_modelc.3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r8\_modelc.3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_relat.1 : \iota \Rightarrow o$  be given. Let  $r8\_modelc.2 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k14\_modelc.3 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k10\_modelc.3 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v3\_modelc.3 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_funct.1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r4\_modelc.3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned}
 & \forall X0.((v1\_modelc.2 X0) \wedge (m2\_finseq.1 X0 k5\_numbers)) \Rightarrow ( \\
 & \quad \forall X1.(m1\_subset.1 X1 (k25\_modelc.2 k43\_modelc.2)) \Rightarrow (\forall X2. \\
 & \quad ((v1\_relat.1 X2) \wedge (v1\_funct.1 X2)) \Rightarrow ((r8\_modelc.3 X0 X1 X2) \Leftrightarrow (\forall X3. \\
 & \quad ((X3 \in k22\_modelc.3 X0) \wedge (r8\_modelc.2 X1 (k14\_modelc.3 X0 (k10\_modelc.3 \\
 & \quad X3 X0)))) \Rightarrow ((v3\_modelc.3 (k10\_modelc.3 X3 X0) X0) \vee (r8\_modelc.2 \\
 & \quad X1 (k14\_modelc.3 X0 (k10\_modelc.3 (k1\_funct.1 X2 X3) X0))))))))) \\
 & \hspace{15em} (1)
 \end{aligned}$$

Assume the following.

$$\begin{aligned}
 & \forall X0.((v1\_modelc.2 X0) \wedge (m2\_finseq.1 X0 k5\_numbers)) \Rightarrow ( \\
 & \quad \forall X1.(m1\_subset.1 X1 (k25\_modelc.2 k43\_modelc.2)) \Rightarrow (\forall X2. \\
 & \quad ((v1\_relat.1 X2) \wedge (v1\_funct.1 X2)) \Rightarrow ((r7\_modelc.3 X0 X1 X2) \Leftrightarrow (\forall X3. \\
 & \quad ((X3 \in k22\_modelc.3 X0) \wedge (r8\_modelc.2 X1 (k14\_modelc.3 X0 (k10\_modelc.3 \\
 & \quad X3 X0)))) \Rightarrow ((v3\_modelc.3 (k10\_modelc.3 X3 X0) X0) \vee ((r4\_modelc.3 \\
 & \quad X0 (k10\_modelc.3 X3 X0) (k10\_modelc.3 (k1\_funct.1 X2 X3) X0)) \wedge ( \\
 & \quad r8\_modelc.2 X1 (k14\_modelc.3 X0 (k10\_modelc.3 (k1\_funct.1 X2 X3) \\
 & \quad X0))))))))) \\
 & \hspace{15em} (2)
 \end{aligned}$$

Assume the following.

$$\begin{aligned}
 & \forall X0. \forall X1. \forall X2. (m1\_subset.1 X2 (k1\_zfmisc.1 \\
 & \quad (k2\_zfmisc.1 X0 X1))) \Rightarrow (v1\_relat.1 X2) \\
 & \hspace{15em} (3)
 \end{aligned}$$

**Theorem 1**

$$\begin{aligned} & \forall X0.((v1\_modelc\_2 X0) \wedge (m2\_finseq\_1 X0 k5\_numbers)) \Rightarrow ( \\ & \forall X1.(m1\_subset\_1 X1 (k25\_modelc\_2 k43\_modelc\_2)) \Rightarrow (\forall X2. \\ & ((v1\_funct\_1 X2) \wedge ((v1\_funct\_2 X2 (k22\_modelc\_3 X0) (k22\_modelc\_3 \\ & X0)) \wedge (m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 (k22\_modelc\_3 \\ & X0) (k22\_modelc\_3 X0)))))) \Rightarrow ((r7\_modelc\_3 X0 X1 X2) \Rightarrow (r8\_modelc\_3 \\ & X0 X1 X2)))) \end{aligned}$$